

REMARKS

As an initial matter, the Office action states that “[t]he terms: “capable of” is [sic] not a positively recited limitation. Therefore, the limitations followed [sic] this term are not considered the claims limitations.” (Office action, item 1, page 2) The Applicants respectfully disagree. However, the Applicants have amended claims 26, 27, 45, and 49-51 in an effort to move the Application towards allowance.

The Office action requests that the Applicant “...update the status of all the applications described in the specification.” (Office action, item 2, page 2) The Applicant respectfully requests that the Examiner specifically identify the location of application status information that is the cause of the request.

Amendments to the Claims

Claim 24 has been amended to address the objection of item 3 on page 2 of the Office action. Applicants respectfully submit that this amendment does not add new matter.

Claim 26 has been amended to modify the text “...capable of processing received ...” to read “...that enables processing of received...”, and to modify the text “...capable of processing the second...” to read “...enabling processing of the second...” Applicants respectfully submit that these amendments do not add new matter.

Claim 27 has been amended to modify the text “...is capable of adjusting...” to read “...enables adjusting...”. Applicants respectfully submit that this amendment does not add new matter.

Claim 45 has been amended to modify the text “...at least one processor capable of receiving ...” to read “...at least one processor that enables receiving...”, and to modify the text “...the at least one processor capable of...” in four places to read “...the at least one processor enabling...”. Applicants respectfully submit that these amendments do not add new matter.

Claim 49 has been amended to modify the text “...is capable of processing received...” to read “...enables processing of received...”, and to modify the text “..., and the at least one

processor is capable of processing the second...” to read “..., and enables processing of the second...”. Applicants respectfully submit that these amendments do not add new matter.

Claims 50 and 51 have been amended to modify the text “...is capable of adjusting...” to read “...enables adjusting...”. Applicants respectfully submit that these amendments do not add new matter.

Claim Objections

Claim 24 was objected to due to an informality, and a suggestion was made that the text “...a portion of the first voice data...” be modified to read “...said portion of the first voice data...”. The Applicants have amended the text, and respectfully request that the objection to claim 24 be withdrawn.

Rejections of Claims

Claims 1-21 were originally filed in the Application on April 12, 2004. A Preliminary Amendment that accompanied the Application cancelled original claims 1-21, and added new claims 22-52. All of claims 22-52 were rejected in the Office action mailed August 22, 2005. Claims 22, 30, 37, and 45 are independent claims. Claims 23-29, 31-36, 38-44 and 46-52 depend either directly or indirectly from independent claims 22, 30, 37, and 45, respectively. The Applicants respectfully request reconsideration of the pending claims 22-52, in light of the following remarks.

Rejection of Claims Under 35 U.S.C. §102

Claims 22-23, 25-26, 29-31, 33-34, 36-38, 40-41, 44-46, 48-49, and 52 were rejected under 35 U.S.C. 102(b) as being anticipated by Matsumoto (U.S. Patent No. 5,812,944) The Applicants respectfully traverse the rejection.

With regard to the anticipation rejections, MPEP 2131 states, “[a] claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631 2 USPQ2d 1051, 1053 (Fed.Cir. 1987). MPEP 2131 also states, “[t]he identical

invention must be shown in as complete detail as is contained in the ... claim.” *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989).

Regarding claim 22, the Applicants respectfully submit that the Matsumoto reference does not teach, suggest, or disclose, for example, a circuit for processing data representative of voice signals, the circuit having two signal paths comprising in a first signal path, a queue for storing first voice data representative of a first voice signal; and a digital to analog converter having an output, the digital to analog converter for receiving the first voice data from the queue, the digital to analog converter converting the first voice data to a first analog representation of the first voice signal, and, in a second signal path, an analog to digital converter having an input, the analog to digital converter for converting a second analog representation of a second voice signal to second voice data; and signal processing circuitry for removing from the second voice signal represented by the second voice data, a portion of the first voice signal representative of the first voice data. More specifically, Matsumoto fails to teach signal processing circuitry for removing from the second voice signal represented by the second voice data, a portion of the first voice signal representative of the first voice data, as recited in claim 22. The Office action suggests that the signal processing circuitry of Applicants’ claim 22 corresponds to the subtract element (28 of Fig. 1) of Matsumoto. The Applicants respectfully disagree. The subtract element (28) of Matsumoto accepts as inputs a transmit energy value R0 from the VSELP speech encoder (13) and the output of compare element (27), which accepts as inputs the transmit energy R0 from the VSELP speech encoder (13) and the receive energy R0 from the buffer (21). (col. 3, ll. 14-27) Applicants respectfully submit that the transmit energy R0 received from the VSELP speech coder (13) and the receive energy R0 from the buffer (21) are different from and fail to disclose Applicants’ second voice signal and first voice signal. Matsumoto clearly states that “[t]he frame energy value R0 of a speech signal reflects the average signal power (mean square value) of the input speech over a 20ms interval. According to the TIA/EIA standard, R0 is computed during the computation of the short term LPC parameters, converted into dB relative to full scale (which is defined as the square of the maximum sample amplitude), quantized to 32 levels and encoded with five bits once per frame.” (col. 3, ll. 28-35) Applicants respectfully submit that the transmit and receive energy values R0 of Matsumoto are not speech signals, but average signal power over a 20 ms. interval, which is different from a speech signal. The Applicants respectfully submit, therefore, that Matsumoto reference fails to teach

“signal processing circuitry for removing from the second voice signal represented by the second voice data, a portion of the first voice signal representative of the first voice data”, as recited in Applicants’ claim 22.

In addition, the Matusmoto reference fails to teach a queue for storing first voice data representative of a first voice signal. The Office action alleges that the buffer (21) of Matsumoto teaches a queue. The Applicants respectfully disagree. The term “queue” may be defined as “a multi-element data structure from which (by strict definition) elements can be removed only in the same order in which they were inserted; that is, it follows a first in, first out (FIFO) constraint.” (see e.g., Microsoft Press Computer Dictionary Third Edition, 1997, at page 392) Matusmoto is silent with respect to queues, and fails to teach that the buffer (21) is a queue. Instead Matsumoto teaches that “[t]he output of FEC decoder 20 is entered frame-by-frame into a receive buffer 21 where it is separated into the individual speech parameters and stored in respective locations of the buffer 21, and individually read and supplied to a VSELP speech decoder 22.” (col. 2, l. 67 to col. 3, l. 4) Matsumoto fails to teach that the buffer (21) is capable of holding multiple speech frames, but only that a speech frame “...is separated into the individual speech parameters and stored in respective locations of the buffer 21.” (col. 3, ll. 1-3) The Applicants respectfully submit, therefore, that the Matsumoto reference fails to teach “a queue for storing first voice data representative of a first voice signal”, as recited in Applicants’ claim 22.

Therefore, Applicants respectfully submit that Matsumoto is different from and fails to anticipate Applicants’ invention as set forth in claim 22, for at least the reasons set forth above. Because claims 23-29 depend from claim 22, Applicants respectfully submit that Matsumoto is different from and fails to anticipate claims 23-29, as well. Therefore, Applicants believe that claims 22-29 are allowable over the Matsumoto reference, and respectfully requests that the rejection of claims 22-23, 25-26 and 29 under 35 U.S.C. §102(b), be withdrawn.

Regarding claim 30, the Applicants respectfully submit that the Matsumoto reference does not teach, suggest, or disclose, for example, a method of processing data representative of voice signals, the method comprising receiving first voice data representative of a first voice signal;

queuing the first voice data; converting the first voice data into a first analog representation of the first voice signal; converting a second analog representation of a second voice signal into second voice data; and removing from the second voice signal represented by the second voice data, a portion of the first voice signal representative of the first voice data. The Office action states that "...claims 30-31, 33-34, and 36 are merely the method counterpart of circuit claims 22-23, 25-26, and 29 and include similar language," and rejects claim 30 for the same reasons set forth with respect to claim 22. (Office action, page 4) Because no additional grounds for rejection are provided, Applicants respectfully submit that claim 30 is allowable for at least the same reasons set forth above with respect to claim 22.

Therefore, Applicants respectfully submit that Matsumoto is different from and fails to anticipate Applicants' invention as set forth in claim 30, for at least the reasons set forth above. Because claims 31-36 depend from claim 30, Applicants respectfully submit that Matsumoto is different from and fails to anticipate claims 31-36, as well. Therefore, Applicants believe that claims 30-36 are allowable over the Matsumoto reference, and respectfully requests that the rejection of claims 30-31, 33-34 and 36 under 35 U.S.C. §102(b), be withdrawn.

Regarding claim 37, the Applicants respectfully submit that the Matsumoto reference does not teach, suggest, or disclose, for example, a machine-readable storage, having stored thereon a computer program having a plurality of code sections for processing data representative of voice signals, the code sections executable by a machine for causing the machine to perform the operations comprising receiving first voice data representative of a first voice signal; queuing the first voice data; converting the first voice data into a first analog representation of the first voice signal; converting a second analog representation of a second voice signal into second voice data; and removing from the second voice signal represented by the second voice data, a portion of the first voice signal representative of the first voice data. The Office action states that "...claims 37-38, 40-41, and 44 are merely the machine-readable medium counterpart of circuit claims 22-23, 25-26, and 29 and include similar language," and rejects claim 37 for the same reasons set forth with respect to claim 22. (Office action, page 4) Because no additional grounds for rejection are

provided, Applicants respectfully submit that claim 37 is allowable for at least the same reasons set forth above with respect to claim 22.

Therefore, Applicants respectfully submit that Matsumoto is different from and fails to anticipate Applicants' invention as set forth in claim 37, for at least the reasons set forth above. Because claims 38-44 depend from claim 37, Applicants respectfully submit that Matsumoto is different from and fails to anticipate claims 38-44, as well. Therefore, Applicants believe that claims 37-44 are allowable over the Matsumoto reference, and respectfully requests that the rejection of claims 37-38, 40-41 and 44 under 35 U.S.C. §102(b), be withdrawn.

Regarding amended claim 45, the Applicants respectfully submit that the Matsumoto reference does not teach, suggest, or disclose, for example, a system for processing data representative of voice signals, the system comprising at least one processor receiving first voice data representative of a first voice signal; the at least one processor queuing the first voice data; the at least one processor converting the first voice data into a first analog representation of the first voice signal; the at least one processor converting a second analog representation of a second voice signal into second voice data; and the at least one processor removing from the second voice signal represented by the second voice data, a portion of the first voice signal representative of the first voice data. The Office action states that "...claims 45-46, 48-49, and 52 are merely the system counterpart of circuit claims 22-23, 25-26, and 29 and include similar language," and rejected claim 45 for the same reasons set forth with respect to the rejection of claim 22. (Office action, page 4) Because no additional grounds for rejection are provided, Applicants respectfully submit that claim 45 is allowable for at least the same reasons set forth above with respect to the rejection of claim 22.

Therefore, the Applicants respectfully submit that Matsumoto is different from and fails to anticipate Applicants' invention as set forth in claim 45, for at least the reasons set forth above. Because claims 46-52 depend from claim 45, Applicants respectfully submit that Matsumoto is different from and fails to anticipate claims 46-52, as well. Therefore, Applicants believe that claims 45-52 are allowable over the Matsumoto reference, and respectfully requests that the rejection of claims 45-46, 48-49 and 52 under 35 U.S.C. §102(b), be withdrawn.

Rejection of Claims Under 35 U.S.C. §103

Claims 24, 32, 39 and 47 were rejected under 35 U.S.C. §103(a) as being unpatentable over Matsumoto (U.S. Patent 5,812,944) in view of Gysel et al. (U.S. Patent 5,649,010, hereinafter “Gysel”). The Applicants respectfully traverse the rejection.

The Applicants respectfully submit that the Examiner has failed to establish a case of *prima facie* obviousness for at least the reasons provided below. M.P.E.P. §2142 clearly states that “[t]he examiner bears the initial burden of factually supporting any *prima facie* conclusion of obviousness.” The M.P.E.P. §2142 goes on to state that “[t]o establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant’s disclosure.”

Regarding claims 24, 32, 39 and 47, the Applicants respectfully submit that claims 24, 32, 39 and 47 are dependent claims depending from independent claims 22, 30, 37 and 45, respectively. Applicants believe that claims 22, 30, 37 and 45 are allowable over the proposed combination of Matsumoto and Gysel, in that Gysel fails to overcome the deficiencies of Matsumoto as set forth above. Because claims 24, 32, 39 and 47 depend from claims 22, 30, 37 and 45, respectively, Applicants respectfully submit that claims 24, 32, 39 and 47 are also allowable, for at least the reasons set forth above. Therefore, Applicants respectfully request that the rejection of claims 24, 32, 39 and 47 under 35 U.S.C. §103(a) be withdrawn.

Claims 27-28, 35, 42-43, and 50-51 were rejected under 35 U.S.C. §103(a) as being unpatentable over Matsumoto (U.S. Patent 5,812,944) in view of Zhu et al. (U.S. Patent 5,534,937, hereinafter “Zhu”). The Applicants respectfully traverse the rejection. The Applicants respectfully submit that claims 27-28, 35, 42-43 and 50-51 are depend either directly or indirectly from

independent claims 22, 30, 37 and 45, respectively. Applicants believe that claims 22, 30, 37 and 45 are allowable over the proposed combination of Matsumoto and Zhu, in that Zhu fails to overcome the deficiencies of Matsumoto as set forth above. Because claims 27-28, 35, 42-43 and 50-51 depend from claims 22, 30, 37 and 45, respectively, Applicants respectfully submit that claims 27-28, 35, 42-43 and 50-51 are also allowable, for at least the reasons set forth above. Therefore, Applicants respectfully request that the rejection of claims 27-28, 35, 42-43 and 50-51 under 35 U.S.C. §103(a) be withdrawn.

Conclusion

The Applicants believe that in light of the reasons set forth above, all of claims 22-52 are in condition for allowance. Should the Examiner disagree or have any questions regarding this submission, the Applicants invite the Examiner to telephone the undersigned at (312) 775-8000 for an interview.

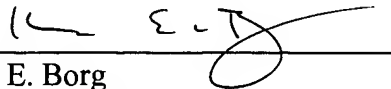
A Notice of Allowability is courteously solicited.

The Commissioner is hereby authorized to charge any additional fees associated with this communication, or credit any overpayment, to Deposit Account No. 13-0017.

Respectfully submitted,

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